E.R. THOMAS MOTOR CO.

Manufacturens of

AUTOMOBILES AUTO BI MOTOR CYCLES.



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Fourth Annual Announcement

E. R. THOMAS MOTOR CO., Inc.

BUFFALO, N. Y.



Diamond Medal won for Gasoline Economy.

MANUFACTURERS OF

Automobiles,

Especially constructed to suit the most rigid requirements of families and business and professional men.

Motor Bicycles,

(Thomas "Auto-Bi.") The only cushionspring fork and Hygienic cushion-frame motor bicycle.

Steel and Leather Belts,

For motor cycles. The only belt that unites all the unstretchable qualities of a chain with the elasticity of a belt.

THOMAS AUTOMOBILES.

THE HAPPY MEDIUM BETWEEN THE CHEAP RUNABOUT AND THE MOST EXPENSIVE CARS.

STUDY every statement carefully, for the choice of an Automobile is a serious matter and the Experience, Facilities, Methods and Purpose of the Automobile Manufacturer should be Carefully Investigated and Considered by the Purchaser who would guard against Dangers, Troubles, and worse than useless expense.

The bicycle of to-day, weighing twenty-two pounds, is much stronger, far easier to propel and much more reliable than that constructed a few years ago, weighing forty pounds. Each year crude weight of no value has been eliminated, and the maximum of efficiency has been attained by attention to detail and perfection of workmanship, something involving much cost in the initiative.

The foregoing fully illustrates the progress that has been made in automobile construction by the E. R. Thomas Motor Co., and the positive assertion can be made that few, if any, American manufacturers are so well qualified as they, by both experience and facilities, to perform the task.

Mr. E. R. Thomas, as managing partner and General Superintendent, H. J. Hass, as Superintendent, for years manufactured the Cleveland bicycle, then conceded to be the very highest type of mechanical perfection. Its constructive requirements in all the details of fine mechanism, fine bearings and compact strength are



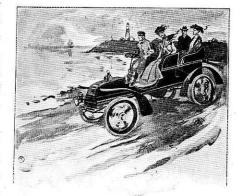
directly in line with the science of automobile construction. In this, also, first care is given to those small but important matters of detail which sometimes escape notice, but the presence or absence of which makes all the difference in the perfected whole.

"The E. R. Thomas Motor Co. were the first to construct Longest and light and powerful gasoline motors (the vital organ of a machine) Experience. on a commercial scale."—Bicycling World, May 8, 1902.

Thomas gasoline machines won the medal at the Toronto Exposition, 1899, A World's Record for Speed, against motors of double

the rated power and weight at the Pan-American Exposition, 1901, and a gold medal for gasoline economy in 1902. They were all made with stock machines. positive proof of accurate, scientific and necessarily more expensive methods of construction. Hence, they have a reputation among the best.

The Thomas plant was especially built for automobile construction. In mechanical facilities it stands among the finest in the world, and in it over a thous-

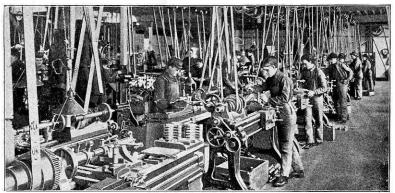


and pieces are made, each a perfect piece of work, demanding the ut- Facilities of most care in manufacture, and the most exacting care in fitting. Plant. The new Thomas process for grinding piston rings, to prevent them springing out of true, is the only way they can be accurately ground. Electric grinders for lapping are part of the equipment, as are also air compressors for testing cylinders and valves. These tests are made at 100 pounds pressure per square inch, which gives positive insurance against leaks, cracks and defective cylinders. Drilling and riveting are also done pneumatically. They also have a complete outfit of automatic gear cutters, automatic tapping machines, Jones & Lamson screw machines, key slotters, flexible and radial drills, screw machines, shapers, lathes, etc., etc., and all the tools,

fixtures, gauges, etc., for accurate and interchangeable construction. Without the entire equipment a perfect automobile or motor is impossible.

Purpose.

For over a year the labor of a large corps of automobile experts has been employed on the development of the new Thomas products, and the most careful consideration of the minutest detail, the scientific tests of the laboratory, and the rough and vigorous tests of the road have been utilized to eliminate every imperfection. Wherever



View in the Workshop.

it has discovered that improvement could be effected, this has been done, and with care and patience everything has been fitted to its place in the simplest, most effective and rigid manner. The same painstaking care has been employed in beautifying the design and improving the finish and in providing a comfort that is akin to luxury.

An Automobile for Family Use. The sole object of this extreme care and skill has been to produce an automobile thoroughly suited to families and business and professional men, who, regardless of cost, require absolute safety, reliability, efficiency, durability, economy, simplicity and general utility. Under the latter head comes speed sufficient for touring and hill climbing. They also require that these qualities should be combined with quietness of movement, ease in starting and stopping,

utmost freedom from mechanical complications and general ease of control, so that their use on crowded city streets may be attended with a minimum of annovance or danger.

The new Thomas is the only car that fulfills all these requirements, for it is simply impossible to unite them in a car not constructed solely for the purpose or one in which the weight and complications of high speed cars have not been eliminated.

At this point let us call your especial attention to an important and surprising fact. The construction of automobiles for use by families and business men presents a field hitherto neglected by other manufacturers. They have for the most part directed their attention to the small "runabout," barely comfortable for two, or to the multiple cylinder car constructed for excessive speed. The latter is no more adequate to the requirements of families and business men than a race horse is suited to a family carriage, and this fact will soon be universally recognized in America as it is beginning to be

abroad.

"It has been demonstrated that speed is not everything," says a foreign automobile journal. As a matter of fact, it is the foe of safety, durability, economy, reliability, simplicity and efficiency, and in short, every prominent feature requisite for general utility. It is entirely unnecessary for touring, and a positive objection for city and family use.

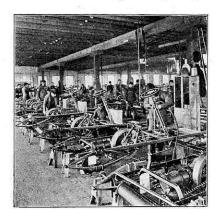
High power is a constant invitation to violation of the law. What is It means danger to rider and public, enormous cost for care, op- the Use? eration, repairs, renewals and tire replacements, and complications and troubles absolutely requiring the care of an expert chauffeur, and all this with no greater results than occasional bursts

of speed, which are universally condemned by the law, the public, newspapers and automobile clubs.

It is a safe prophecy that the day will soon arrive when it will be considered no more respectable to drive a machine at unlawful speed than to commit other violations of the rules of well regulated communities.

The Thomas Is Fast Enough. The "Thomas" will speed twenty-five miles per hour; fast enough for anyone not reckless, and faster than the law allows. The "Thomas" will climb thirty per cent. grades, is speedy on bad roads and long hills, and will accomplish a long distance as quickly as a heavy-powered machine, and more safely and comfortably. One reason for this is that it is not subjected to anything like the same amount of dangerous and violent concussions and severe strains as such machines encounter on country roads. Obviously it will, therefore, prove longer-lived, especially as the running gear in the "Thomas" is the same size as automobiles of double the power, and as to qualities of endurance is, by comparison, several times stronger than others. This, it is clear, serves to minimize the dangers of the road.

It has been well said, "two cylinders, three times the troubles; three cylinders, many more," etc. Perfection of detail and accurate,



Corner in Assembling Room.

scientific construction, and the largest experience in constructing fine motors, fine mechanism, etc., have enabled the E. R. Thomas Co. to attain all speed, touring and hill-climbing requirements with one engine.

This is a very important achievement. It is a fact well known to mechanical engineers that one engine for such a purpose should be medium speed, and horizontal,

with large fly wheel for hill climbing. The automobile with single cylinder has numerous advantages for the ordinary automobilist. It is less complicated, less liable to get out of order on the road, more reliable, simpler, easier and less expensive to keep in repair, and its operation is more easily and quickly learned. In fact, it is the only kind that can be satisfactorily operated and cared for without the employment of an expert chauffeur. Double and triple cylinders may serve the purpose of those wishing to run racing machines, but for amateur drivers the only automobile possible is that built like the "Thomas," with a single cylinder. If you want to be "your own chauffeur," and avoid the expense of keeping a man Be Your to care for and operate your automobile, the "Thomas" is just Own Chauffeur. the machine for you.

But that is not the only advantage it possesses. The experts of the E. R. Thomas Motor Co. have given this problem the most careful study, and by the use of one motor have been able to lessen greatly the weight of the machinery of their vehicles without impairing its strength. They have in this way been able to turn out a machine at once lighter and stronger, requiring less power to propel

it, and possessing a corresponding increase of reliability. The progress thus made in automobile construction is similar to that made in the development of the bicycle to the perfect machine of to-day.

There is still another item of much importance to be considered in this connection, and that is the effect of weight on wear and tear, tire replacements, etc. Much greater economy of operation can be effected with a machine built strongly, but of light weight, than with heavy machines. Not only is the first





cost of the machine reduced, but the entire cost will soon be saved to the purchaser. Tire replacement alone is a very expensive item with a heavy-powered machine. Any person of intelligence can see at a glance that tires will last much longer where the weight of the automobile is less. In the case of the E. R. Thomas Co.'s automobiles they are capable of much greater mileage, longer life is assured, especially as they are guaranteed for 500 pounds more than the weight of the carriage.

The Thomas automobiles are all this, and they include every feature essential to efficiency, reliability and comfort found on the most expensive foreign cars, and some not found on other noted American cars; in particular, the foreign system of speed change shifting gear,

three speeds forward and reverse. The intermediate speed, equivalent to largely increased power, is a real necessity for touring, bad roads and long hills, and which experienced automobilists regard as an absolute requirement. Some of the highest priced American cars have only two speeds forward, or the sun and planet system of speed change.

Beautiful, Elegant and Luxurious. Attention is called to the elaborate and elegant finish of the Thomas automobiles and to their luxurious furnishings. The body is King of Belgium Style—the very latest. The front hood is especially graceful, and the front seats, individual, wide and roomy, are circular with high backs. The detachable Tonneau, with its circular high backs and high end gates, so necessary to keep out dust, complete the convenience and elegance of the vehicle, while the luxuriousness of the whole is increased by the upholstering of all seats in hair-stuffed leather with spring backs and cushions. The entire body is removed by loosening four bolts, and presents as

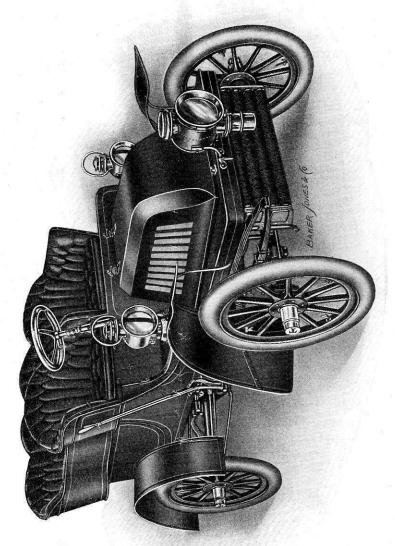
a whole a finish and beauty scarcely equaled in any foreign or domestic car. Two very beautiful brass lamps, with white, red and green French beveled glass lenses, are furnished with each car.

The Thomas automobiles are highly finished in London Smoke, gold stripes, etc. They have the wide tread and long wheel base so necessary for easy riding, durability and flexibility. They are equipped with wood artillery wheels, strong enough for cars of double the weight, made exclusively for Thomas machines; extra heavy detachable tires; are wheel steering; radiating coils dropped in front; double acting brake, which releases engine when applied; wide aluminum plough-share mud guards; lubricating system and induction coil dash board, in sight; copper tanks; slow and fast speed carburettor; powerful circulating water pump, geared to motor; large quiet muffler (cut out); changeable sprockets, for racing; speed, spark and throttle changes; beautifully and ingeniously arranged exhaust lift; reinforced angle iron frame; double trussed rear axles, and all other modern details, grouped in the simplest and most "get-at-

The motor is eight horse-power, of the four cycle medium speed, jump spark, of the same type used vertically or horizontally on the best foreign and American cars, and it can be confidently asserted that the Thomas 1903 models are of the very highest type in every detail.

able" manner.





THOMAS MODEL 18.
Price \$1,400.00.

The New Thomas Model 18.

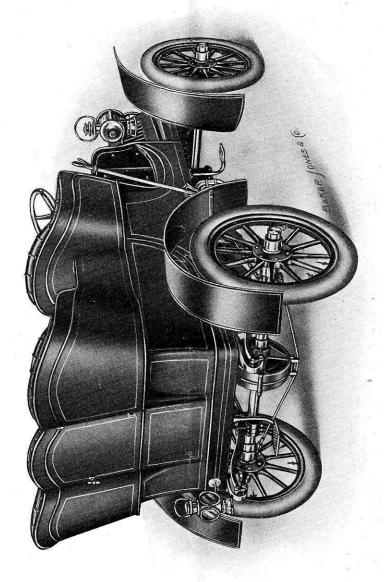
THE ONLY AUTOMOBILE EXCLUSIVELY CONSTRUCTED TO SUIT THE EXACTING REQUIREMENTS OF FAMILIES, PROFESSIONAL AND BUSINESS MEN. PRICE \$1,400.00.

The lowest price ever quoted for high class Tonneau construction. Some may say efficiency is necessarily sacrificed. Not so in the least particular. Our crude material, such as weldless steel tubing, steel forgings, iron castings, steel, aluminum, brass and finished stock, such as tires, wood wheels, induction coils, roller chains, leather, hair, lamps, springs and many other details, cost as much as in the more expensive machines, except for a slight difference in weight in two or three items. Our workmanship is far beyond the average, and in most cases more expensive. We save a

little in smaller tires, the construction of one cylinder and smaller details. We save a lot by purchasing crude material in very large quantities, and by having in our shops all the jigs, fixtures, tools, etc., and the most modern machinery; also by entire familiarity with the finest

to a large class of purchasers.

workmanship, by operating continuously throughout the year with practically the same force of workmen, who necessarily become more expert and turn out work in larger quantities; by turning out a finished product every day in the year except inventory week, Sundays and holidays, and by large operations and output, and by constructing our own motors, transmission gears, compensating gears, axles, steering gear, pumps, carburettors, mufflers, bodies, etc.; by painting, by no expense for racing events, by eliminating all middlemen and by purchasing and selling exclusively for cash, and by the volume and character of our trade, which appeals



REAR VIEW THOMAS MODEL 18.

Price \$1,400.00.

Specifications Thomas Automobile Model No. 18.

THOMAS MOTOR NO. 93-8 H. P., cylinder, heads and valves are water jacketed.

CYLINDERS are bored accurately to uniform size and faced to length gauge. Drilling is done with interchangeable jigs and automatically tapped, which brings all studs and screws square with the face and does away with any possible strain. Each cylinder, water chamber and valve is subjected to an air pressure of 100 pounds per square inch, which is sure to develop defects, or leaks, if any, before leaving the factory.

PISTONS—Pistons are turned to gauge, ring grooves are accurately cut with special tools.

PISTON RINGS—Contrary to the usual practice of having only three wide rings—the Thomas practice is to have four narrow ones, with no greater width of friction surface, which forms 331/3% increased protection against compression leaks. All piston rings are accurately ground to 1000 of an inch on the three wearing surfaces, which also affords greatly increased protection against leakage.

INLET VALVE—Is mechanically operated, making it impossible to stick. The Thomas was among the first to adopt the mechanically operated inlet valve, which is now being incorporated on all the latest French models.

VALVES—All poppets are drop forged steel turned to micrometer size and ground, seats are fitted at an angle of 45 degrees, the seat is perfect, regardless of expansion by heat of seat or valve. As previously stated, all valves are tested for leaks by an air pressure of 100 pounds per square inch.

CAMS—Are of cast steel with bronze bushings and are turned to gauge, milled to fit receiving gauge and are hardened to stand wear. Thomas motors have but one cam, which greatly minimizes troubles. With one point of the cam properly set, both are right.

CONNECTING RODS—Are self-oiling, the piston end by a runway which insures perfect lubrication; the crank shaft end by splash; they are made of steel with bronze ends so fitted as to take up the slightest lost motion. Crank shafts are short and of forged steel 13/8" in diameter, hand forged, guaranteed against breakage. Fly wheels are finished all over and are evenly balanced.

TRANSMISSION GEAR-(See cut elsewhere) The transmission is of the best French type sliding gear, further improved by absence of bevels. It is a well known fact that bevel or mitre gears absorb 10% or more power. It has three speeds forward and reverse; the intermediate speed being equivalent to a large increase of power when used for bad roads and long grades. Poor transmission occasions more troubles than any other one cause, and in this respect the Thomas is superior to nearly every American car and equal to the best French type. The three speeds forward are geared 1 to 1, 1 to 1.6 and 1 to 21. Reverse, 1 to 3. Three speeds, 8, 16 and 25 miles per hour, one lever, side control. Power is transmitted from fly wheel to engine shaft by large conical face clutch. The engine may be disengaged by foot lever, also by brake lever. All thrusts are backed by ball bearings, all journals have special bronze bushings. All gears are case hardened, operating in oil bath, encased in oil tight and dust proof aluminum top case. Shaft gears are cut from the solid bar-not castings; workmanship and material first-class and very simple. Diameter of gear shafts, journals and gear faces are large enough for much greater power.

SPROCKET-Forged steel, changeable for higher or lower speed.

THE NEW THOMAS MIXER, Patent applied for. (Cut elsewhere.)

The mixer is of the constant level float type, which includes the advantages of the best foreign types with some valuable improvements—notably, variable gas as well as air feed, additional protection against dirt, will use any quality of gasoline and will work in any kind of weather, also zero weather without warming.

The liquid is strained before arriving at float chamber. The construction of float chamber is such that barriers are formed to prevent sediment from obstructing the feed to float chamber. Should any enter, it can be drained by valve at bottom of chamber.

The liquid, before reaching level of center needle, passes through a gauze strainer, which can be easily removed for cleaning, bringing all sediment or paraffine with it. An occasional cleaning will prevent all mixer troubles.

Every part is accessible and can be easily removed. No adjustable needle is required, which eliminates much trouble. The mixer permits easy starting, also very slow and quiet running.

WHEEL BASE—6' 6".

STANDARD GAUGE.

PLATFORM SPRINGS-Front 13/8 x 32. Rear 11/2 x 36, strong, heavy, forged clips.

ROLLER CHAINS-1/2" wide, 1" pitch, 9 Roller.

BEARINGS-Ball and roller. (See cut elsewhere.)

GRADES-30%, roads, any accessible.

ELECTRIC SWITCH-French design on front dashboard.

SPARK AND THROTTLE CONTROL beautifully arranged with side segments on steering tube.

BATTERIES, alternating sets.

INDUCTION COIL-Quarter oak, cased on dashboard.

MULTIPLE LUBRICATING SYSTEM—Pressure feed. Lubricates only when running.

BODY-King of Belgium type, detachable Tonneau.

COLOR-London Smoke. New, beautiful and durable design.

CIRCULATING PUMP-Geared to motor; very forcible.

WATER TANK-Copper; capacity 200 miles.

GASOLINE TANK-Copper; capacity 200 miles; under front hood.

WHEELS—Wood Artillery, patented. Wide flange, short spokes, extra strong, brass caps on hubs, beautifully finished, 28" x 3".

RUNNING GEAR—Frame, taper steel side plates, with angle iron riveted to side. Very strong. All bolts and nuts have cotter pins and lock nuts wherever necessary.

AXLES—Front tube 2 x 8 gauge, rear tubes $2\frac{1}{4}$ x 8 gauge. Thoroughly aligned, trussed in front and below, compensating gear cages 12^n in diameter, $4\frac{3}{4}^n$ wide, drop forged steel yokes and knuckles, with hardened steel bushings, knuckle pivots hardened steel ground to size, the knuckle is turned taper with fillet at shoulder. Knuckle spindle $1\frac{3}{16}$ x 6^n . Hollow cold drawn steel axle tubes $1\frac{7}{16}$ diameter, $\frac{1}{2}^n$ wall.

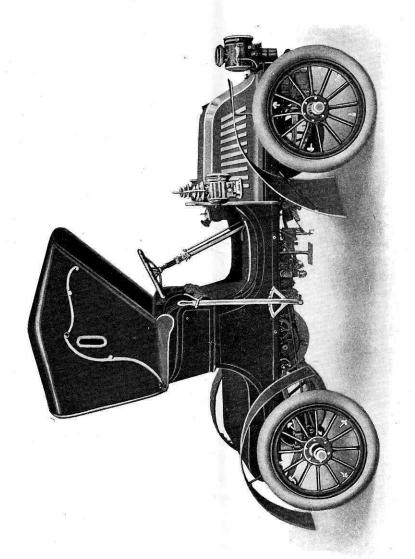
TIRES—Diamond detachable, 28" x 3", guaranteed for cars 500 pounds greater weight.

BRAKE-Raymond double acting. Emergency Brake, \$5.00 Extra.

STEERING WHEEL-Hinged throw to permit of easy ingress and egress.

MUFFLER-Large and noiseless, with cutout.

For cut of chassis and further details consult other pages.



THOMAS AUTOMOBILE MODEL 19 FOR PHYSICIANS.

The Latest Improved Automobile for Physicians.

Complying with the very large demand for a more powerful and higher class automobile for physicians than has heretofore been constructed, we offer our Model No. 19 as the nearest approach to their requirements.

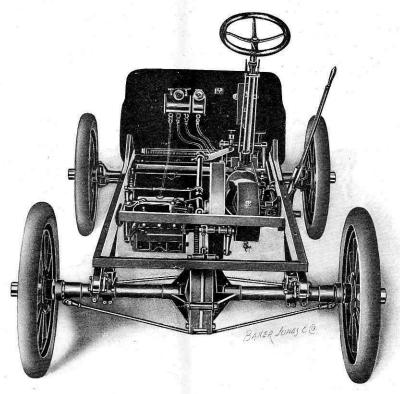
For specifications please consult pages 13, 14, 15, Model No 18.

Rain or shine, night and day, at all hours the physician is compelled to answer the demands of humanity, and hence of all classes of purchasers, his requirements are the most rigid. Efficiency, simplicity, reliability and durability of construction are absolutely necessary for his purpose.

The Thomas is the only physician's car in America that uses the French system of shifting gear; that feature alone is worth to him many hundreds of dollars in the life-time of the machine, but many other features are also superior.

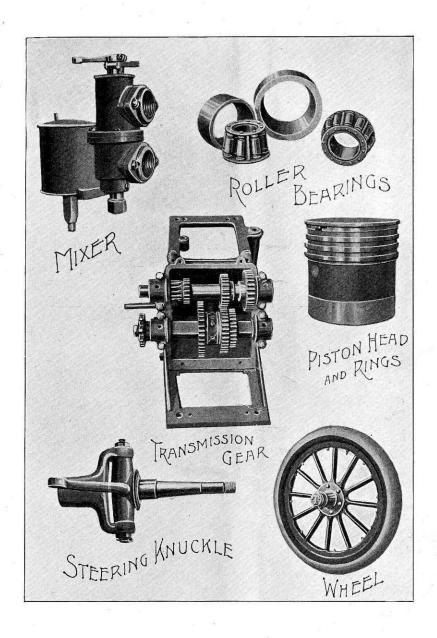
The Thomas is built for the man that operates his own machine. There is not a tank or other feature attached to or over the cylinder, pumps, carburettor, spark plug, transmission gear, etc. Every part may be seen at a glance, and every part is easily "getatable."

The induction coil, pressure feed lubricating system and electric switch is on the dashboard in full view; pressure on one foot lever will apply the brakes and disengage the engine at the same time, or the engine may be disengaged and the car coast by pressure on another foot lever. Undoubtedly the Thomas is the simplest automobile made, and the best adapted for night work.



CHASSIS, THOMAS MODEL 18.

Doctors' Body. Any kind of carriage or delivery wagon body may be fitted.



The Thomas "Auto-Bi."

New Model No. 35, the Perfect Motor Bicycle.

THREE GREATEST IMPROVEMENTS EVER MADE—
SPRING TRUSS FORK, HYGIENIC SPRING
FRAME, AND COMBINATION RAWHIDE AND STEEL BELT.

The public has come to look for great and ingenious improvements in the motor bicycle from the makers of the Thomas "Auto-Bi," who are the originators of the first motor bicycle roadster, and are to-day the largest and most popular manufacturers of this useful as well as remarkable machine.

The expectations of the public will be gratified this year in a greater degree than ever.

ALL THE HITHERTO VEXATIOUS PROBLEMS OF ENTIRE STRENGTH AND SAFETY, TRANSMISSION, HILL CLIMBING, COMFORT AND SPEED OVER COUNTRY ROADS, VIBRATION AND GENERAL UTILITY, HAVE BEEN SOLVED, with the result that the Thomas "Auto-Bi" has won the enthusiastic applause of the public as a machine far in advance of its competitors and making the perfect motor bicycle.

The Thomas "Steel and Rawhide Tight Gripping Belt" (patents applied for) unites all the elastic qualities of a belt with the unstretchable qualities of a chain. Two thousand miles have been ridden over the worst possible roads and up very steep grades, without any stretch or wear, and we have no doubt that with reasonable care they will last 5,000 miles.

By the use of the Thomas "Steel and Rawhide Tight-Gripping Belt" grades have been made on stock Thomas "Auto-Bi's," without assistance of the pedals, never possible by chain or ordinary belt under same conditions. This feature alone makes the Thomas "Auto-Bi," Model 35, worth two of any other motor bicycle.

The Thomas Spring Cushion Truss Fork (patent applied for) constitutes another important contribution to safety and comfort on a motor or any other kind of a bicycle. By its flexibility and truss fork construction it presents such safeguards against accident that it is impossible to conceive how, even under the worst conditions, a fork could break and let a rider down on the road. It also relieves the strain on the head cones and cups, and the vibration of the handle bar.

The new "Auto-Bi," Model No. 35, will be found the only motor bicycle equipped with cushion trussed fork and Hygienic Cushion Frame, a combination that in safety, comfort, road speed, and durability, makes the "Auto-Bi," Model 35, worth to the rider twice the amount asked for any other machine, as it is the only motor bicycle that can be ridden with speed, safety and comfort over cobble stones and country roads.

The new Model No. 35, besides being of a type superior to all competition, is still further improved in the following particulars: It has improved power and efficiency; larger exhausts; trembler spring is fulcrumed at the lower part of controller box; longer springs; contact screw fastening improved by the use of coneshaped fibre washers, which cannot work loose from imperfect insulation; larger oil outlet below center of crank case; engine pulley corrugated, to combine greatest amount of gripping power with a minimum amount of belt wear; a waste chamber, to prevent oil throwing; automatic spring idler, improved mixer; safety switch made more durable and smaller, with only one control holding screw, a very efficient device.

100

TERMS.

Terms, on all sales net cash on shipment to purchasers or draft against bill of lading. On delivery to common carrier the makers' responsibility ceases.

Mail Order Business.

Without any particular effort being made in this direction, orders for hundreds of our machines, during the past few years, have been received by mail from both the United States and foreign countries, from dealers and individuals living remote from headquarters, and with whom we have had no personal acquaintance.

It is needless to state that the mark of confidence displayed by sending large sums for first and repeat orders is most sincerely appreciated, and greater efforts than ever will be made to deserve it. Our machines have reached such high standards of efficiency and reliability as the results of experience, facilities and large and continuous operations, and our policy being the most liberal, that this class of purchasers, as well as others, are assured of the most prompt and liberal treatment.

Members National Automobile Association.

Operating instructions furnished with each machine.

Standard Warranty

UNDER WHICH ALL AUTOMOBILES MADE BY E. R. THOMAS MOTOR CO. ARE SOLD.

We warrant all goods furnished by us for sixty days following the date of their shipment, based upon the date of invoice covering the goods, this warranty being limited to the replacement in our factory of all parts giving out under normal service in consequence of defect of material or of workmanship.

If the circumstances do not permit that the work shall be executed in our factory, this warranty is limited to the shipment, without charge, of the parts intended to replace those acknowledged to be defective.

It is, however, understood that we make no warranty whatever regarding pneumatic tires or the batteries.

We cannot accept any responsibility in connection with any of our motor cars when they have been altered or repaired outside of our factory.

We are not responsible to the purchaser of our goods for any undertakings and warranties made by our agents beyond those expressed above.

We wish it distinctly understood that we make no warranty of our goods except as stated above, but desire and expect that customers shall make a thorough examination of our goods before purchasing.